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SCCSID = reserv_grid_loc.man v1.2 08/11/03


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Date:           10/15/02
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|                     SOUTH FLORIDA WATER MANGEMENT MODEL V5.0                   |
|                              INPUT MAN PAGE FOR                                |
|                                                                               |
|      reserv_grid_loc == defines the grid location of reservoirs/stas and other leveed |
|                         systems to be simulated                               |
|                         (unit no. 145; subroutine reserv_input_data.F)         |
|                                                                               |
--------------------------------------------------------------------------------



COLS.  VAR.NAME          FORMAT              DESCRIPTION
--------------------------------------------------------------------------------
1. BASIC NUMBER OF RESERVOIRS: (1 record total)
--------------------------------------------------------------------------------
       NMAREA            free  number of STAs plus Rotenberger Tract if treated as
                               reservoir

       NRESLEC           free  number of other proposed reservoirs

       sfactmin          free  maximum ratio of actual reservoir area to total grid
                               area covered by the reservoir; reservoirs with fractions
                               below sfactmin are treated as totally separate entities
                               in the grid system
--------------------------------------------------------------------------------
2. NUMBER OF OUTPUT FILES TO CONTAIN RESERVOIR BUDGET: (1 record total)
--------------------------------------------------------------------------------
1-3  no_of_small_res_budg_files
                         free  number of daily reservoir budget output files
--------------------------------------------------------------------------------
3. DEFINITION OF RESERVOIR BUDGET OUTPUT FILES: (no_of_small_res_budg_files records total)
   format(I3,2x,A6,2x,A80)
--------------------------------------------------------------------------------
1-3    iunit_no_res_file(i)
                         I3  unit number to be assigned for reservoir output budget

4-5    blank             2X

6-11   res_name_budg(i)  A6  variable name to be used for reservoir name
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12-13    blank                   2X

14-93    res_file_name(i)   A80  name of reservoir budget output filename

         note: Record 4 to be created for all no_of_small_res_budg_files.
--------------------------------------------------------------------------------
4. DEFINITION OF RESERVOIRS: (NMAREA+NRESLEC records total)
   format(A6,2x,2i3,2(2x,A3),1x,2F5.1,F6.1,1x,20(1x,4i3,3F5.1))
--------------------------------------------------------------------------------
1-6      resname(i)         A6   variable name to be used for reservoir name

7-8      blank                   2X

9-11     nnodes(i)          I3   number of grid cells reservoir contains

12-14    ibsn_no_res(i)     I3   hydrologic basin number for reservoir
                                 (appropriate grid cells will be assigned basin number)

15-16    blank                   2X

17-19    ires_small_sim(i)  A3   option to simulate reservoir as a separate entity
                                 in grid system(YES or NO).  If YES and reservoir to
                                 cell size ratio < sfactmin, reservoir will be
                                 treated as a separate entity from gridcell (small
                                 reservoir).  If NO and reservoir to cell size ratio
                                 < sfactmin, reservoir will be modeled as a large
                                 reservoir.

20-21    blank                   2X

22-24    ires_lev_seep_dir_cnl_opt(i)
                            A3   option to have levee seepage from Reservoir directly to
                                 borrow canal

25       blank                   1X

26-30    frac_seep_dir_cnl(i)
                            F5.1 fraction of maximum levee seepage from reservoir directly
                                 to canal. Maximum levee seepage would occur when reservoir
                                 is built right next to levee.  Only used when reservoir is
                                 a separate entity from cell.

31-35    width_of_res(i)    F5.1 mean width of reservoir(miles).  Only used for long-skinny
                                 reservoirs.  -99 means data not used.

36-41    rinit_res_stg(i)   F6.1 initial stage in reservoir(ft. NGVD) ;
                                 -901 means initial reservoir stage is the same as
                                 initial grid cell stage.
```

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42       blank                 1X

         note: The following set of eight fields is a continuation of the
               same record and are repeated for k = 1,nnodes(i).
43       blank                 1X

44-46    icol_res_loc(k)       I3  x location (col number)

47-49    irow_res_loc(k)       I3  y location (row number)

50-52    idirect(i,k)          I3  orientation (1 -east-west,2 - North-south) of flow
                                   within reservoir.  Only relevant for overland and
                                   groundwater flow along long-skinny reservoirs.

53-55    lutyp_res_loc(i,k)    I3  land use type index

56-60    ells_in_res_t(i,k)
                               F5.1  land surface elevation(ft. NGVD) within reservoir
                                     for each grid location reservoir passes

61-65    aqperm_in_res_t(i,k)
                               F5.1  aquifer permeability (10000 ft/day).  Use -99 for same
                                     permeability as cell.

66-70    AQDEP_in_res_t(i,k)
                               F5.1  altitude of base of surficial aquifer relative to
                                     msl for each grid location reservoir passes.  Use -99
                                     if not applicable.

         note: Record 5 is created for the total number of reservoirs,
               i.e., i = 1,NMAREA+NRESLEC.
--------------------------------------------------------------------------------
5. DEFINITION OF ADDITIONAL RESERVOIR: (1 record total) usually "NORES      0"
--------------------------------------------------------------------------------
1-       resname(ntotres+1) free reservoir name after NTOTRES  reservoirs where
                                   NTOTRES = NMAREA+NRESLEC; if equal to 'NORES',
                                   then no additional reservoirs are included

         nnodes(ntotres+1)  free number of grid cells reservoir contains
--------------------------------------------------------------------------------
6.  DEFINITION OF YET ADDITIONAL RESERVOIRS: (up to 30-NTOTRES-1 records total)
    format(A6,2x,2i3,1x,20(1x,3i3)); these reservoirs are not defined in input file
    "reservoir_input.dat"; (e.g. STA-2 in partial implementation simulations)
--------------------------------------------------------------------------------
1-6      resname(j)            A6  reservoir name after NTOTRES+1 reservoirs where
                                   NTOTRES = NMAREA+NRESLEC; if equal to 'NORES',
                                   then no additional reservoirs are included
```

```
7-8       blank                 2X

9-11      nnodes(j)             I3  number of grid cells reservoir contains

12-14     ibsn_no_res(j)        I3  hydrologic basin number for reservoir
                                    (appropriate grid cells will be assigned basin number)

15        blank                 1X

          note: The following set of four fields is a continuation of the same
                record for l = 1,nnodes(j).
16        blank                 1X

17-19     icol_res_loc(l)       I3  x location (col number)

20-22     irow_res_loc(l)       I3  y location (row number)

23-25     lutyp_res_loc(j,l)    I3  land use type index

          note: Record 8 is created for j = ntotres+2 to a maximum of
                30-NTOTRES-1 number of times. Please refer to common
                block STAS in file "stas.inc".
             These records are read until EOF is encountered.
--------------------------------------------------------------------------------
END OF DESCRIPTION FOR INPUT FILE "reserv_grid_loc"
--------------------------------------------------------------------------------
```